32 FAA REGULATORY MISSION

The FAA has two key missions: air traffic management (ATM) and aerospace safety and security regulation. Sections 15 through 27 describe services and related systems used to carry out the ATM mission. Sections 29 through 31 describe activities that support both key FAA missions. This section is an overview of key services and products used to carry out the FAA's regulatory mission. It addresses activities related to regulation, certification, inspection, and monitoring of NAS elements.

Organizations primarily responsible for carrying out the regulatory mission are Regulation and Certification (AVR), Airports (ARP), Civil Aviation Security (ACS), and Commercial Space Transportation (AST). Air Traffic Services (ATS) and other organizations also perform some regulatory functions, which are not addressed in this section. Personnel staffing levels and associated personnel costs for all organizations are addressed in Section 12, Personnel. Training of safety inspectors and other technical personnel and resource management are covered in Section 31, Mission Support. Section 11, Regulation and Certification Activities Affected by New NAS Capabilities, includes a more detailed discussion of specific regulatory and certification activities affected by the new capabilities outlined in this document.

32.1 Aviation Safety Regulation

AVR promotes aviation safety by regulating and overseeing civil aviation.

32.1.1 Major Activities

To fulfill its mission, AVR provides the following services:

- Establishes standards governing:
  - Design, quality, and airworthiness of aeronautical products
  - Operation and airworthiness of aircraft
  - Training of airmen and aviation mechanics
  - Medical qualifications of airmen and air traffic controllers.
- Issues and maintains certificates and licenses for:
  - The design and manufacture of aircraft, aircraft engines, propellers, materials, parts, and appliances
  - Air operators, air engines, and airmen
  - Medical certificates for airmen
  - Aircraft registration
  - Designee appointments (designated agents who perform inspection activities at commercial locations).
- Monitors performance by:
  - Conducting reviews of products and safety data for trends
  - Conducting inspections and surveillance activities
  - Investigating violations and initiating enforcement actions
  - Participating in accident and incident investigations.
- Conducts aviation safety education and sponsors safety-related research.
- Manages the FAA's rulemaking process.

32.1.2 Organization and Infrastructure

To support its mission, AVR has offices at FAA Headquarters and at region and field locations. The infrastructure to support aircraft safety research, engineering, and development (R,E&D) is located at the William J. Hughes Technical Center (WJHTC) in Atlantic City, N.J. The Civil Aeromedical Institute (CAMI), Airmen/Aircraft Registry and other AVR offices are located at the Mike Monroney Aeronautical Center (MMAC) in Oklahoma City, Okla. AVR trains safety inspectors at the FAA Academy. AVR also trains safety inspectors at the FAA's Center for Management Development, in industry-approved training programs such as Flight Safety International, and through certificated operators that offer training to flight crew members other than their own employees. The cost of modernizing CAMI's infrastructure is covered in Section 29, Facilities and Associated Systems; the cost of modernizing AVR's aircraft is addressed in Section 31, Mission Support.

AVR is developing and revising several safety information and decision support systems. These systems were initiated at the national level to ensure that requirements for data collection, storage, processing, and dissemination are compatible. The systems include the following:

- Civil Aviation Registry

- Aviation Safety Analysis System (ASAS)

- Portable Performance Support System (PPSS)

- Safety Performance Analysis Subsystem (SPAS)

- Integrated Flight Quality Assurance (IFQA).

The Civil Aviation Registry supports aircraft registration, pilot certification, and processing of aircraft major alteration forms. ASAS, PPSS, and SPAS provide aviation safety inspectors with the tools needed to ensure a consistent high level of compliance with aviation safety requirements. ASAS captures, analyzes, and disseminates a wide range of safety-related data. PPSS provides the capability to identify and track safety standards violations, while SPAS provides the ability to analyze safety-critical performance indicators.

The IFQA concept was a principal recommendation of the 1995 FAA Safety Conference. IFQA has two objectives:

- To encourage U.S. airlines to use flight data recording capabilities to monitor aircraft status and aircrew performance.

- To use such data to improve NAS safety. The IFQA program analyzes recorded flight data to determine national trends relative to aircraft design and manufacture and to identify systemic problems in flight operations, aircrew performance, and aircraft maintenance.

32.1.3 Research and Human Factors

AVR conducts several research programs in carrying out its mission. Aviation safety research and human factors programs are addressed under Section 10, Research, Engineering, and Development.

32.1.4 Strategic Initiatives

AVR sponsors a major initiative called RTCA Task Force 4. The task force will review the certification process "end-to-end" for advanced avionics systems. Spurred by the need to develop more responsive certification standards and processes for communications, navigation, and surveilllance (CNS)/ATM and related systems on the ground and in the air, the task force will review the certification processes; recommend changes to improve timeliness, reduce cost, or improve safety; and indicate how and when these changes should be implemented. Task Force 4 focuses on avionics and related ground and airborne systems and generally will not consider structural, powerplant, or other certification issues. AVR will assess the recommendations from Task Force 4 to determine their impact on the agency.

32.2 Airport Regulation

ARP provides the leadership and support necessary to plan, develop, and maintain a system of airports that meets the United States' need to transport people and goods by air safely, efficiently, and economically. It also fosters the use of U.S. safety standards by foreign airports.

32.2.1 Major Activities

ARP provides the following services: airport safety and certification, environmental compatibility, airport planning, protection of the federal investment, and airport standards.

The Airport Certification Program, outlined in Part 139 Code of the Federal Regulations (CFR) enhances airport safety. ARP issues airport operating certificates and establishes minimum standards for airports that serve commercial aircraft carrying more than 30 passengers. It also inspects more than 600 certificated airports to ensure they adhere to safety standards and regulations and takes appropriate enforcement action. ARP collects and disseminates airport facility data, sponsors airport safety seminars, and promotes safety at general aviation airports. ARP also participates in accident investigations when requested by the National Transportation Safety Board (NTSB).

ARP ensures that airport development is carried out in conformance with the National Environmental Policy Act and other environmental laws. Under the provisions of CFR Part 150, ARP encourages land use compatibility in the vicinity of airports by providing technical assistance and funding for individual airports in support of their noise compatibility programs. In cases where per-

sons or businesses are displaced as a result of airport development, ARP ensures that private property rights are protected and economic hardships are mitigated for those affected. Additionally, ARP administers CFR Part 161, which is concerned with the requirements for evaluating proposals for restrictions on airport access.

ARP works in partnership with federal, state, and local officials to plan a system of airports that will promote the safe and efficient movement of passengers and goods. Passenger enplanements are forecast to double in the next 15 years. To meet this challenge, ARP will implement an Airport Capital Improvement Program that will establish a systematic approach to airport planning and create a link between planning and capital investment decisions.

ARP protects the federal investment in airports by:

- Ensuring airports are open to the public on fair and reasonable terms

- Ensuring airports are operated and maintained in a safe and efficient manner

- Ensuring airport operators comply with surplus property and grant requirements

- Reviewing proposals to determine the effects on airport operations and the federal investment in airports.

ARP publishes airport design, construction, equipment, operation, and maintenance standards in the form of advisory circulars. Certificated airports and airports which accept Federal funds are required to comply with these standards. ARP also provides airport owners, airport consultants, airport equipment manufacturers, FAA officials, and the general public with technical assistance.

ARP manages the Airport Improvement Program (AIP) and the Passenger Facility Charge (PFC) Program. These programs support NAS modernization efforts by funding the acquisition of critical airport infrastructure such as runways, taxiways, safety and security equipment, lighting and signs, navigational aids, and passenger terminal facilities.

In the terminal area, ARP works with the International Civil Aviation Organization (ICAO) to establish airport safety, design, and operational standards. ARP exchanges information with other nations and provides airport officials with onsite technical assistance and training.

32.2.2 Organization and Infrastructure

ARP has offices at FAA Headquarters and at airport district offices in the regions. Inspectors and other technical personnel are trained at the FAA Academy. The infrastructure to support airport R,E&D activities is located at the WJHTC.

ARP is in the process of developing or revising several information systems to support its primary services, including:

- Airport safety data system

- National Plan of Integrated Airport Systems/ Capital Improvement Program

- Passenger facility charges information system

- Airport Improvement Program and national airport grants information system

- Compliance and certification management information system

- Airports inventory management system.

32.2.3 Airport Safety Research

Research programs supporting ARP safety and planning activities are addressed in Section 10, Research, Engineering, and Development.

32.2.4 Strategic Initiatives

ARP is pursuing several initiatives in addition to the programs outlined above, including:

- Enhancing protection of the federal investment

- Effectively addressing the need for increased system capacity

- Prioritizing and measuring airport development results

- Seeking creative ways to raise capital for airport development.

32.3 Civil Aviation Security Regulation

To fulfill its mission, ACS:

- Protects the public using air transportation throughout the world and the integrity of the civil aviation system

- Develops policies, programs, and procedures to prevent criminal, terrorist, or other disruptive acts against civil aviation

- Protects FAA facilities and employees

- Assists in the interdiction of drugs and narcotics

- Supports national security.

32.3.1 Major Activities

ACS, air carriers, and airport authorities share aviation security responsibilities. Air carriers bear the primary responsibility for applying security measures to passengers, service and flight crews, and baggage and cargo. Airport authorities are responsible for maintaining a secure environment and for implementing airport security measures.

ACS provides or performs the following services:

- Establishes and enforces regulations, policies, and procedures

- Identifies potential threats and appropriate countermeasures

- Provides guidance to ensure the safety of passengers, crew, baggage, cargo, and civil aircraft

- Provides guidance to ensure the security of FAA facilities and personnel

- Publishes countermeasures in the CFR and security directives

- Ensures that the CFR and security directives are properly executed

- Conducts investigations to verify violations and support enforcement actions

- Provides security on U.S. air carrier flights worldwide

- Trains explosives detection teams

- Develops security incident and hazardous materials emergency response procedures

- Deploys federal security managers at major airports in the United States.

- Deploys civil aviation security liaison officers at selected airports in foreign countries

- Fosters security education and awareness

- Provides information and briefings

- Provides technical assistance.

32.3.2 Organization and Infrastructure

ACS has offices at FAA Headquarters, in each region, at the MMAC, and at the WJHTC. Security technical training is conducted at the FAA Academy. The infrastructure for conducting security R,E&D programs is located at the WJHTC. Programs that implement security measures in FAA facilities are addressed in Section 29, Facilities and Associated Systems. The cost for information security policy and management is covered in Section 9, Information Security. The cost for administrative security programs is covered in Section 31, Mission Support.

At present, ACS relies on several legacy information systems to support its mission. The civil aviation security information system collects data on the results of inspections, investigations, and surveillance. These data are used to shape the operational work program. The security information and reporting systems provide policy and guidance information to the ACS workforce. The facility information reporting system collects data on security inspection activities at FAA facilities. These systems are becoming less and less effective, and ACS plans to convert them from mainframe systems to distributed network systems. The airport/air carrier information reporting system has already been developed and implemented.

32.3.3 Research and Human Factors

Civil aviation security and human factors research programs are addressed in section 10, Research, Engineering, and Development.

32.3.4 Strategic Initiatives

ACS is pursuing other strategic initiatives, including: improving security in FAA facilities, improving methods for inspecting hazardous materials, and analyzing information collected from security inspections and exercises. In response to the White House Commission on Aviation Safety and Security recommendations, the FAA has formed a Security Equipment Integrated Product Team (IPT). The IPT will plan, procure, and install explosives detection devices and other advanced security technology at U.S. airports. The team in-

cludes representatives from airlines and airport authorities.

32.4 Commercial Space Transportation Regulation

AST safeguards U.S. foreign policy interests and enhances the viability and international competitiveness of U.S. commercial space transportation consistent with the needs of military, intelligences, and other government sectors.

32.4.1 Major Activities

To fulfill its mission, AST performs the following services:

- Provides licenses to conduct commercial space launches and to operate launch sites

- Issues regulations and guidelines

- Performs payload determinations and accident investigations

- Licenses compliance monitoring and enforcement

- Reports on regulatory matters

- Negotiates memoranda of agreements with federal and local government agencies.

- Coordinates with federal agencies to promote U.S. space transportation and to approve launches and new launch site applications

- Coordinates with industry and educational institutions to promote career opportunities in the space industry and supports other activities

- Coordinates with other FAA lines of business to integrate new space vehicle technologies and infrastructure in the NAS.

32.4.2 Organization and Infrastructure

The AST organization is located at FAA Headquarters. AST's space transportation analysis and research (STAR) data base contains a variety of information on launch vehicles, payloads, launch

events, launch sites, and companies. AST also uses the David A. Baker (DAB) ascent launch design tool, a 3-degree-of-freedom simulation tool, which models launch vehicle flight trajectories and debris impact points. It is used primarily for safety analyses and as a regulatory development aid.

32.4.3 Strategic Initiatives

Several commercial space markets are forecast to grow, and AST is enhancing its planning to be able to handle the expected growth. AST is improving the regulatory environment for vehicle and site operations by updating commercial space launch vehicle licensing rules and developing regulations that cover financial responsibility and nonfederal launch sites.

AST is also committed to improving the integration between space transportation and other modes of transportation in the NAS. AST is actively working with the U.S. Air Force and the National Aeronautics and Space Administration (NASA) to ensure that commercial space transportation needs are addressed in technology enhancement efforts. AST also assists the Office of the U.S. Trade Representative to ensure world commercial space launch market stability.

32.5 Costs

R,E&D, facilities and equipment (F&E), and operations (OPS) costs for performing the FAA's regulatory mission are included under Section, 31, Mission Support, except as indicated elsewhere.

32.6 Summary

As the NAS architecture is implemented, new regulatory procedures may be required to enable new capabilities to be used. The FAA is embarking on a program, in collaboration with NAS users, to identify new, more cost-effective, and timely ways of implementing new regulations.